RESTRICTED CIRCULATION

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Agricultural Memorandum No 681a

Weather and the Non-Febrile Common Cold

L P Smith

The analysis used the following factors

(a) 60 sets of 4 week morbidity data (C_N) mean weekly cases per 100,000
(b) Week previous cases as infection factor (F)
(c) Mean over previous 12 weeks, excess of 150 as immunity factor (M)
(d) Mean of Kew and Speke air minimum temperature over 4 week periods starting 3 days previous to the 4 week morbidity data arranged in two steps (i) up to a maximum of 6°C (N_3)
(ii) excess, if any, over 6°C (N_4)

The regression found was:-

$$C_N = 145 + 0.475F - 0.5M - 9.25N_3 - 7.2N_4$$

with a multiple correlation of 0.84.

and partial correlations 0.45 on F
-0.30 on M
0.49 on the combined temperature factor

Tested over 39 independent sets of morbidity data the correlation between actual and estimated values was 0.87.

Any comments or suggestions on this paper should be referred to the author.

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